

ECONOMIC COMMENTARY

Breakfast with Dave

May 13, 2024

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EQUITY MOMENTUM MODEL

5-Day Moving Average Daily Score 9/10 (Positive Momentum)

Category	...50-day moving average?	...200-day moving average?	Score by category (where Y = 1)
Price: Is the S&P 500 above its...	Y	Y	2
Earnings: Are next four quarter S&P 500 earnings above their...	Y	Y	2
Risk Appetite: Is the ratio of S&P 500 high beta to low volatility stocks above its...	N	Y	1
Financial Conditions: Are financial conditions above (i.e. more accommodative) their...	Y	Y	2
Credit: Are high yield bonds (total return basis) above their...	Y	Y	2
Daily Score			9

Note: a score of greater than 6 indicates positive momentum, between 4 to 6 is neutral, and less than 4 is negative momentum

MORNING MACRO/MARKET MUSINGS

While We Were Sleeping

It is a rather uneventful way to kick off the week. Bond markets globally are eerily quiet. The same for the FX market with the DXY dollar index stuck at 105.3 (the New Zealand dollar is the underperformer, down to 60 cents (U.S.), as two-year ahead inflation expectations fell in Q2 to a near three-year low of 2.33% from 2.50% in Q1). U.S. stock market futures are pointing to a flattish open and European equities also are very little changed. There were only three advancers in Asia — Hong Kong (+0.8%), Taiwan (+0.7%), and Singapore (+0.2%). Meanwhile, there was nothing but red on the screen elsewhere: India (-0.2%), China's Shanghai Composite (-0.2%), and Japan's Nikkei 225 (-0.1%) while Korea and Thailand closed fractionally lower.

Little market reaction to Beijing's announcement of a planned 1 trillion yuan (\$138 billion) sale of ultra-long (20- to 50-year maturities) special sovereign bonds, as early as this week, to fuel a revival in the soft Chinese economy (the 10-year Chinese bond yield actually fell -2.4 basis points today to 2.29% (!) though iron ore and copper sure liked the news as they have popped in the overnight trade). Bitcoin has bounced +2.2% to \$62,648 as gold headed in the opposite direction (-0.4% to \$2,350 per ounce but only after rallying +2.6% last week — have a look at [Global Turmoil Sparks New Gold Rush](#) on page B1 of the WSJ), while Brent crude is little changed (all market quotes are time-stamped to 4:15 a.m. ET).

The S&P 500 is now up +9.5% for the year and within spitting distance of making a new all-time high (just 0.6% shy). But that masks some interesting developments beneath the surface. With the futures market having all but priced out any Fed easing this year and multiples in the top decile of all time, investors have become increasingly selective. **Even as year-over-year EPS growth looks set to come in at a two-year high of +5.4% for Q1, the shares of companies that fail to beat their estimates have fallen an average of -2.8% following the release of the numbers. And the profit picture is skewed by the fact that “Magnificent 7” earnings growth is running hot at +48% while the rest of the index is posting a decline of -2.4%.**

China's CPI provided a rare upside surprise, picking up to +0.3% YoY in April from +0.1% in March and coming in above the +0.2% consensus view. Looking at the data on an MoM basis, the core price index barely rose at all at +0.2%. At the same time, the deflation in producer prices continued unabated — at -2.5% YoY (was -2.8% in March) and this actually was a tad worse than the -2.3% consensus view. Sequentially, the PPI edged down -0.2% MoM and has printed

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negative numbers now in each of the past four months (and this series correlates well with Chinese corporate profits). Prices of manufactured products sank -0.6% for the second month running and you have to go back to May 2022 to see the last time we saw a plus sign in front of this metric. And the companion report on Chinese money and credit data flagged a contraction in aggregate financing (the broadest measure of credit) for the first time in nearly two decades (October 2005, to be exact) — a net decline of 199 billion yuan (household borrowing contracted 532 billion yuan as the Chinese consumer is definitely hunkering down). *Ergo*, deflationary pressures are still in play despite the YoY uptick in the April CPI data.

This is a hectic week for U.S. data, with the PPI for April due out on Tuesday and then twin CPI and retail sales reports on Wednesday (see Nick Timiraos' piece titled [Housing Stymies Fed on Inflation](#) on page A2 of today's WSJ). **Friday's action, which showed a collapse in May consumer sentiment but a pickup in inflation expectations and the yield backup in the Treasury market, is a testament to the view that all that matters for investors are the price numbers. And there is a growing chorus on the FOMC who are now signaling no moves at all for 2024. We have come a long way from that dovish verbal pivot last December.**

At least we know that the Manheim used car price index in April sagged -2.3% (down three months in a row) and is running at -14% on a YoY basis (lowest level since March 2021). The issue is when we start to see insurance rates and rents begin to cool off (the Apartment List data showed new tenant rental rates up +0.5% MoM in April, so that at least is encouraging). The headline CPI is expected to come in at +0.4% MoM on the back of higher gasoline prices (+5.0% in April), but if the core arrives at +0.3% as per the consensus, the Fed will not find comfort in that number one iota.

We then receive industrial production on Thursday for April (consensus is at +0.1% MoM, the same as the core retail sales number — is that representative of an overheating economy for the Fed to truly be fretting about?) and finish the week with the Conference Board's leading economic indicator — it looks to have declined -0.3% (stock market didn't help). This will take the level back to where it was in April 2020. But let's face facts — nobody cares about this statistic any longer.

We discuss the move towards consumer frugality and the "trading down" effect below, but thought we would highlight the best article of the day showcasing this behavioral shift: [Chicken Prices Are Inflation Hedge](#) on page B1 of today's WSJ. To wit:

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"Stung by the rising price of beef, diners are buying more wings at fast-food chains and frozen tenders at grocery stores. Meat giants like Tyson Foods and Pilgrim's Pride, in turn, are bringing in higher profits from poultry as demand rises for their products and costs fall for livestock feed.

Retail-sales volumes of all U.S. chicken products were up about 3% for the 52 weeks ended April 21 compared with the prior year, according to market-research firm Circana. Pork and beef were each down slightly.

The share of U.S. consumers' incomes spent on food is at a three-decade high, prompting people to shift spending toward cheaper, private-label items and cut back on purchases of some well known brands. Last week Tyson executives said that shoppers are giving priority to essential items over beef and more expensive branded food products.

"The consumer, they're just being more discerning today than they've been in some time," Tyson Chief Executive Donnie King said. "Demand there for chicken is very strong, some of that perhaps coming from beef consumers."

Rick Lipinkas, 71 years old, said he has been buying more chicken from the grocery store over the past year as beef prices rise. The retired state health department employee from Albany, N.Y., said he used to buy more ground beef, but chicken is a better deal now that ground beef is \$5 a pound. He tends to buy bone-in thighs, boneless when they are on sale, chicken livers or a whole chicken that he can store in the freezer.

"Somebody always has chicken on sale," he said.

Consumers are trading down to cheaper chicken items on restaurant menus, said Fabio Sandri, CEO of Pilgrim's Pride, which is majority-owned by meatpacking giant JBS.

Sales at fast-food chains were up 6% for Pilgrim's in its latest quarter from the prior year, even as overall restaurant foot traffic declines, the company said. Shares in the nation's second-largest chicken processor are up about 60% over the past 12 months."

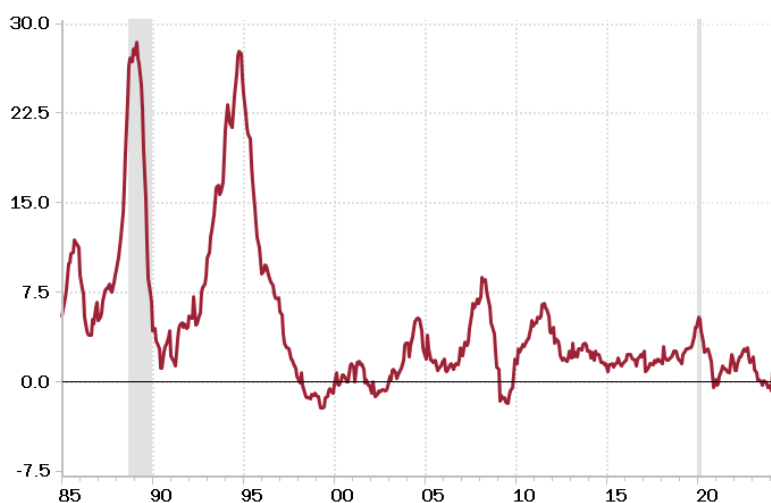
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What is interesting is the dichotomy between the red-hot Atlanta Fed Nowcast model at +4.2% annualized real GDP growth in Q2 at the same time that the Citi Economic Surprise Index has rolled over to the lowest level since January 2023. That quarter ended up seeing a +2.2% growth rate — just about where the New York Fed and St. Louis Fed models are at the current time. And remember, while everyone seems to bow down to the Atlanta Fed estimate, there was a time when it was calling for Q1 real growth near +3.0%, and we ended up with +1.6%. It is not infallible.

Not only that, but the Atlanta Fed number masks what is really happening beneath the surface which is a K-shaped economy where the have-nots are lagging far behind the upper echelons benefitting from the positive wealth effect stemming from the bull market in both equities and residential real estate. This was underlined by the latest FT-Michigan Ross poll showing President Biden's disapproval rating on the economy rising to 58% from 55% a month ago — his approval rating on the macro backdrop sagged -4 points to a mere 28% (voters are consistently ranking the economy as the #1 issue with the war in Gaza, despite all the media attention on campus protests, right near the bottom).

CPI

China
(year-over-year percent change)



Shading indicates recession

Source: Haver Analytics, China National Bureau of Statistics, Rosenberg Research

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PPI

China
(year-over-year percent change)



Shading indicates recession
Source: Haver Analytics, China National Bureau of Statistics, Rosenberg Research

PPI: Manufacturing

China
(year-over-year percent change)

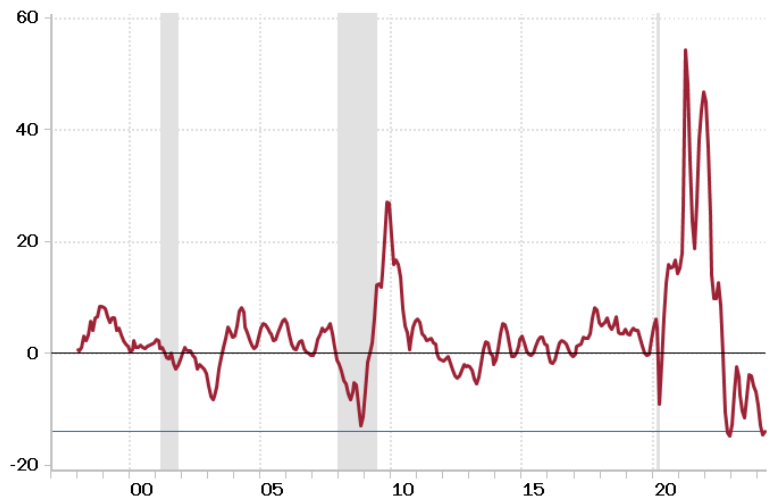


Shading indicates recession
Source: Haver Analytics, China National Bureau of Statistics, Rosenberg Research

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Manheim Used Vehicle Value Index

United States
(year-over-year percent change)



Shading indicates recession
Source: Haver Analytics, Manheim, Rosenberg Research

Manheim Used Vehicle Value Index

United States
(index)



Shading indicates recession
Source: Haver Analytics, Manheim, Rosenberg Research

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The U.S. Economic Surprise Index Is At Its Lowest Since January 2023

United States: Citi Economic Surprise Index
(index)



Source: Bloomberg, Citigroup, Rosenberg Research

A Bull Market In... Volatility!

A red-hot +10.2% first-quarter surge in the S&P 500 was followed by a cruel -4.2% pullback in April and then by at least a +3.7% rebound across all the major averages this month as “sell in May and go away” has thus far fallen flat on its face. One meat grinder of a market, to be sure. But what has really caught our eye is the one sector leading the charge — Utilities! What you want to own in recessions! The Utilities Select Sector SPDR ETF has returned nearly +20% just over the past three months.

As for bonds, they have hung in well despite the fact that the market had gone from pricing in 6 Fed rate cuts at the turn of the year to 1 now — and with only 35% odds of seeing two moves by December. Meanwhile, the ECB, BoE, and BoC look set to diverge very soon. Hanging in the balance is a supercharged U.S. dollar, which for the tradeable goods sector is a mighty deflationary event.

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Frugality and “Flation”

I can't say for sure what new distortion this week's CPI report will show, but suffice it to say that the pressures on inflation are subsiding in real-time. What more evidence do we need than McDonald's reverting to the \$5 meal plan? I kept hearing at the Jefferies event I just participated in about how terrific household balance sheets are. **Yet, to the uninitiated, it is not averages or aggregates that drive the business cycle as much as changes at the margin.**

So what's changed? How about “Buy Now, Pay Later” in the Health sector? The front page of Friday's WSJ ran with [More Hospitals Demand Payment Before Surgery](#). Even when it comes to medical treatments, unpaid bills have been piling up. The vagaries of the household sector refusing to even save a dime of those massive Biden stimulus checks from 2021. The consumer frugality theme received a major shot in the arm from this piece, on page B10 of the weekend WSJ titled [Bet on Garden Centers Is Starting to Blossom For Tractor Supply](#). Gardening supplies, like consignment stores, are classic contra-cyclical signposts.

Next in line worth reading was this little ditty from the Saturday NYT: [Why Companies Are Nervous About the Struggling Consumer](#) (on page B3). To wit:

“Mass-market brands like the fast-food companies McDonald's, KFC and Starbucks, have reported that a lot of customers are pulling back on spending as high inflation bites.”

“The less-affluent are feeling the pinch. They've blown through their pandemic savings and they're racking up credit card and other loan debt. One area to watch: A surge in ‘buy now, pay later’ programs may be masking America's ‘phantom’ consumer debt problem.”

“John Peyton, C.E.O. of Dine Brands Global, the parent of Applebee's and IHOP restaurants, told analysts that lower-income consumers are ‘more aggressively managing their check, finding our value-oriented items.’”

“Ramon Laguarta, Pepsico's C.E.O., was more blunt. ‘The lower-income consumer is stretched,’ he said, adding that this type of customer ‘is strategizing a lot to make their budgets get to the end of the month.’”

When I was debating my pal David Zervos at his company's event last week, I was lectured on how I am blind to the reality of a U.S. consumer that has miraculously found a way to circumvent the business cycle. The complacency around the room was truly palpable — I even received

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pushback for bringing up the QCEW data (that it doesn't include illegal immigration, so how on earth can it be regarded as a viable source of information!).

The Next Oil Boom

This is the subtitle on page 25 of Barron's and satisfied our deep search to have anything positive to say about the Canadian economy. The country has the third largest oil reserves on the planet after Saudi Arabia and Venezuela.

And what is changing is that after nearly a decade of waiting, pipeline operations are set to deliver the crude to customers — as in the Trans Mountain Pipeline running from Calgary to Vancouver. **The new infrastructure is going to triple capacity, especially on those going to the West Coast of the U.S. and Asia. Canada's oil discount relative to the United States is shrinking fast.**

This is all very reminiscent of the shale production revolution a decade ago, which also was constrained at the time by limited pipeline capacity. And with U.S. shale output having been tapped out, the opportunity for the major Canadian producers to capture North American market share is enormous. Canadian energy stocks are flashing green across our sector models. We may not be the biggest fans of the over-inflated S&P 500, but there are indeed investable opportunities in North America worth considering that have greater risk-adjusted return potential.

Investors Are Getting More Discerning

Investors are punishing companies that miss earnings expectations way more than rewarding those that beat. Indeed, per Bloomberg data, those that have seen results come in less than expected have lagged the market by -3.2 percentage points — the worst since Q2 2020. For those that top projections, investors are not rewarding their stock price at all, achieving no outperformance versus the broader market (-0.08 percentage points to the second decimal). All part and parcel of a market that is still priced for perfection.

Investors are getting more discerning, rightfully taking on a more cautious stance given the softer tone to the dataflow of late and the number of warning signs emerging in management guidance and commentary (particularly surrounding the consumer).

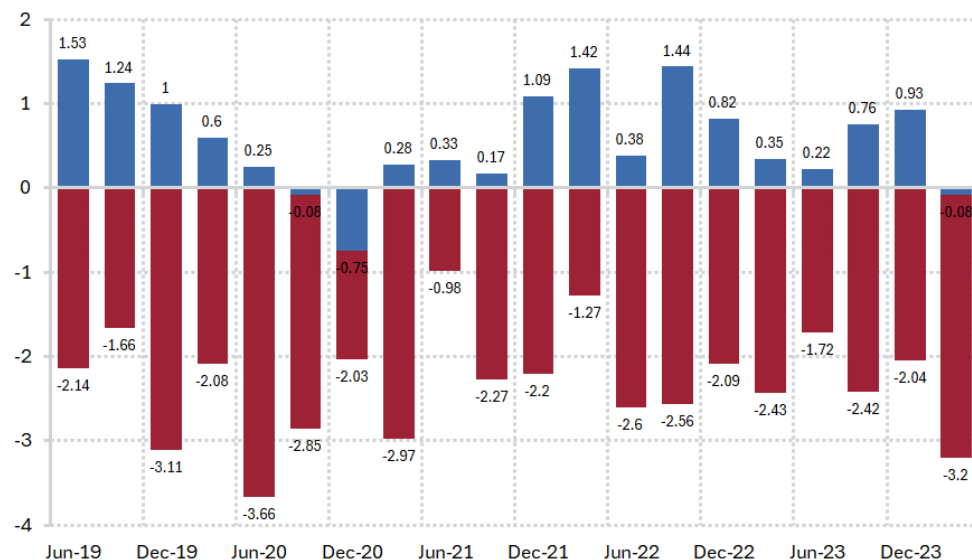
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Investors Start to Get More Discerning

United States: *Share price performance following EPS beats and misses*

(red bar; earnings miss; percentage points)

(blue bar; earnings beat; percentage points)



Note: Price performance is in excess of S&P 500

Source: Bloomberg, Rosenberg Research

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RECESSIONARY THUMBPRINTS ALL OVER THIS UMICH REPORT

The preliminary May reading for the University of Michigan Survey of Consumers plunged to 67.4 from 77.2 in April. This came as a downside surprise to expectations of a one-point decrease to 76.2, while marking the lowest level since November and the second straight fall-off in sentiment. The -10 point decline was the worst monthly performance since August 2021. The deterioration was across the board, as both current conditions (68.8 from 79.0; consensus: 79.0) and expectations (66.5 from 76.0; consensus: 75.0) fell to six-month lows. For current conditions, this marked the biggest pullback since April 2020. **This report was nothing short of recessionary, with the weakness seen by consumers across all ages, incomes, and levels of education.**

Household views on the economy have soured dramatically, as both near-term and long-term opinions on business conditions slumped to their worst levels in six months. Ditto for opinions on personal finances. The expected change in real incomes index plunged to 57.0 from 67.0, a level not seen since June 2012. This was sitting at 81.0 at the beginning of the year for context. The probability of higher incomes over the coming year fell for the fourth straight month to 49% from 50% in April, 54% in March, 56% in February, and 58% in January. Consumers haven't been this bearish on their wages since March 2023. Odds of real income gains over the next five years have been whittled down to just 30% (also the lowest since 2012).

Fully 40% of respondents believe that unemployment will increase over the coming year — the most since this time last year. We can add this UMich report to the list of weakening labor market readings of late.

Unsurprisingly, the negative outlook on personal finances and jobs/wages translated into a dismal set of buying conditions readings. Indeed, views on large household goods plummeted -20 points (89.0 from 109.0) to stand at a 12-month low (the largest decline since April 2020). Auto buying plans (62.0 from 70.0) hit their worst in five months. Of particular concern was the fact that intentions to buy a home plunged to the worst on record (!) based on data back to the 1950s.

Households have abandoned their bullish views on the stock market as the mean probability of rising stock prices over the coming year fell to 57% from 62%. From a wealth perspective, this

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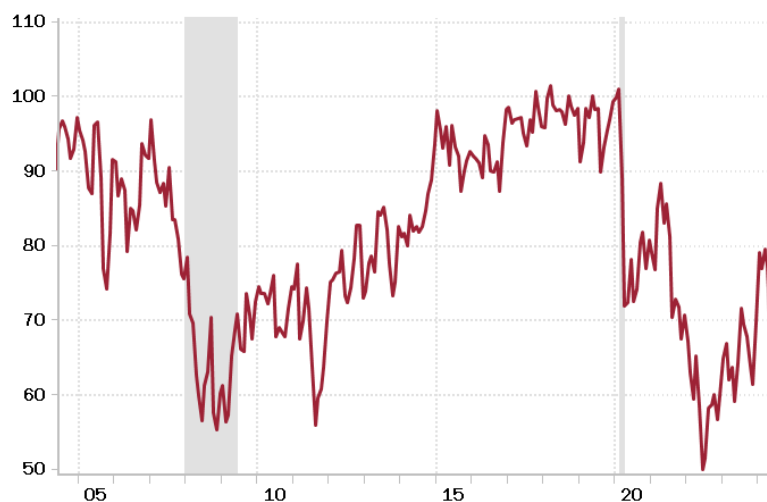
view was offset by where assessments of home prices are going — 51% believe the value of their home will be higher next year compared to 49% prior (most since April 2022). Perhaps to be expected given the sclerotic housing market implied by such a dismal reading on homebuying intentions.

At play has been the Fed's successful efforts to push back on rate cut timing, and the re-emergence of “higher for longer” creeping into consumers' views on interest rates. Three-quarters of respondents believe that interest rates will either “stay the same” or “go up” (most since November), while 25% believe they will be heading lower over the coming year.

Year-ahead inflation expectations did disappoint, rising to 3.5% from 3.2% (consensus: 3.2%) though it's hard to imagine a scenario where this plays out given such weak demand indicators present in this report. To us, the biggest influence on this front comes from the 50% of respondents who believe gas prices are heading higher — the most since November. We can also add the home price expectations given their outsized influence on CPI inflation. More important was the fact that long-term price measures remain incredibly stable — inching up to 3.1% from 3.0%, remaining in their well-established range since January 2022.

Consumer Sentiment

United States: *University of Michigan Survey of Consumers*
(index)



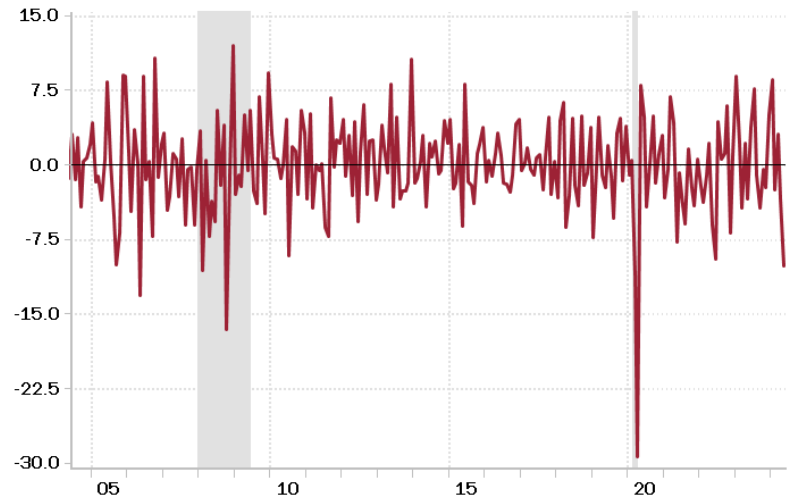
Shading indicates recession

Source: Haver Analytics, University of Michigan, Rosenberg Research

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Current Conditions

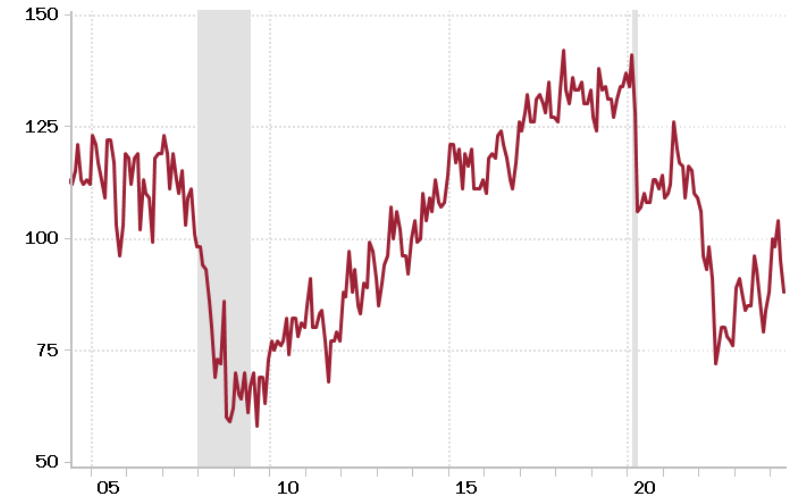
United States: *University of Michigan Survey of Consumers*
(month-over-month change)



Shading indicates recession
Source: Haver Analytics, University of Michigan, Rosenberg Research

Personal Finances Compared to 1 Year Ago

United States: *University of Michigan Survey of Consumers*
(index)

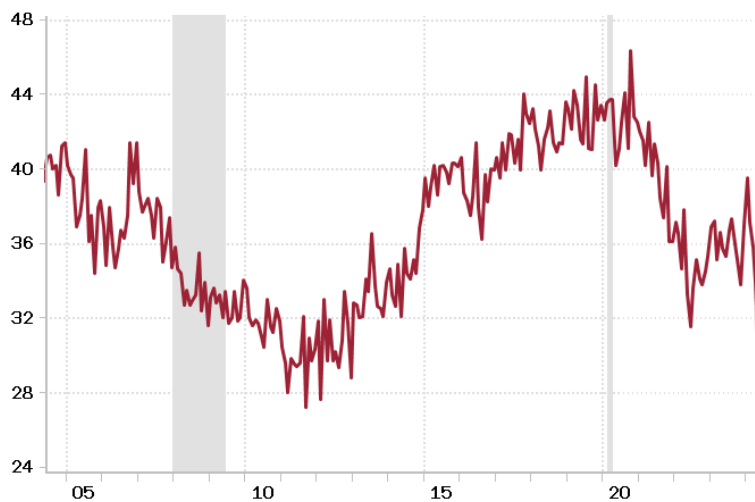


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Probability of Real Income Increase in 5-10 Years

United States: *University of Michigan Survey of Consumers*
(percent)

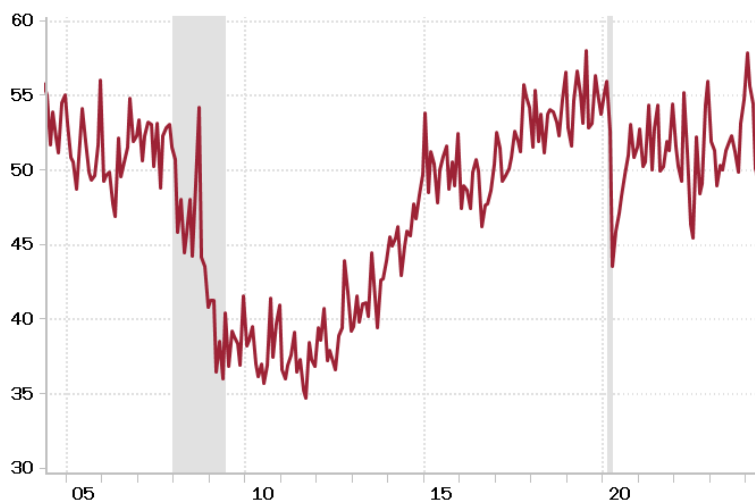


Shading indicates recession

Source: Haver Analytics, University of Michigan, Rosenberg Research

Probability of Income Increase in 1 Year

United States: *University of Michigan Survey of Consumers*
(percent)



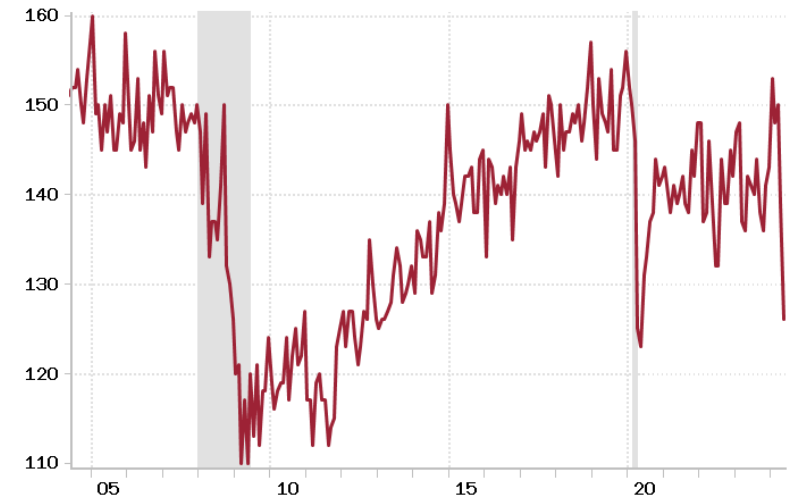
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Consumer Expectations: Household Income Change in 1 Year

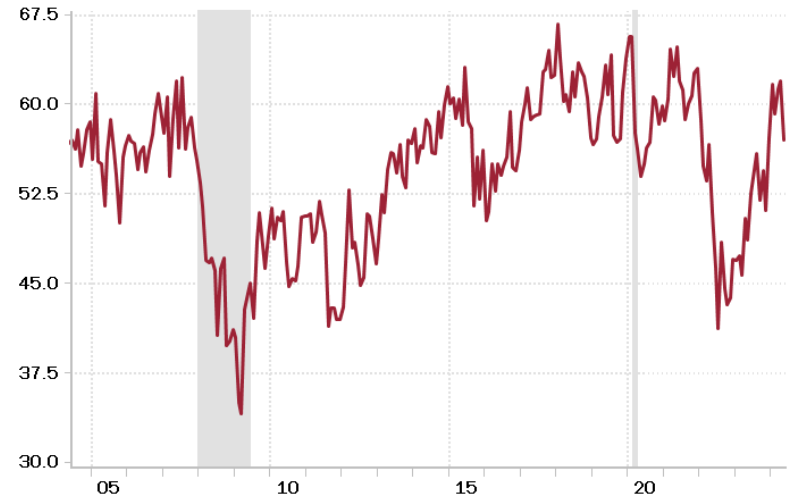
United States: *University of Michigan Survey of Consumers*
(index)



Shading indicates recession
Source: Haver Analytics, University of Michigan, Rosenberg Research

Probability of Stock Price Increase in 1 Year

United States: *University of Michigan Survey of Consumers*
(percent)

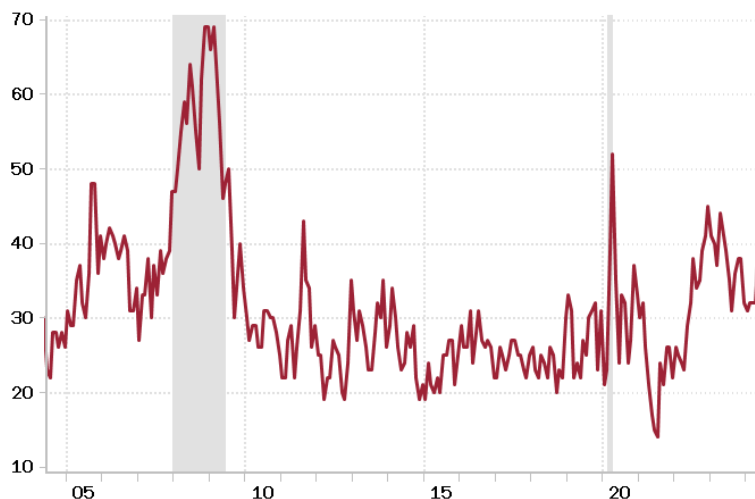


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12-Month Expectations: More Unemployment

United States: *University of Michigan Survey of Consumers*
(percent)

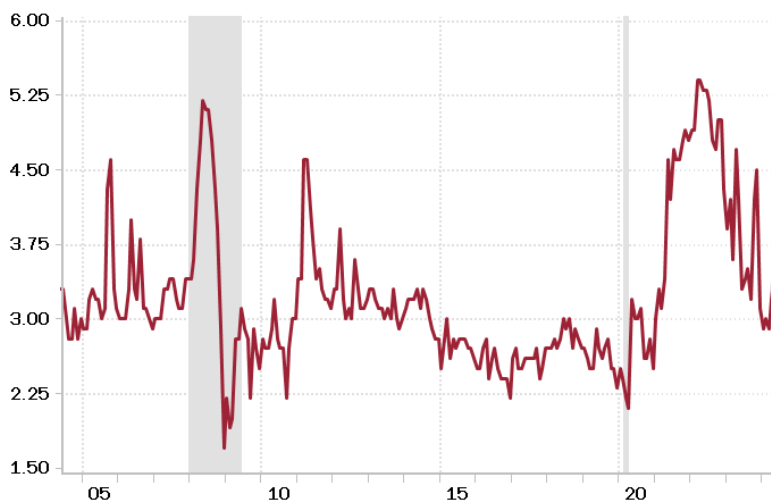


Shading indicates recession

Source: Haver Analytics, University of Michigan, Rosenberg Research

12-Month Inflation Expectations

United States: *University of Michigan Survey of Consumers*
(percent)



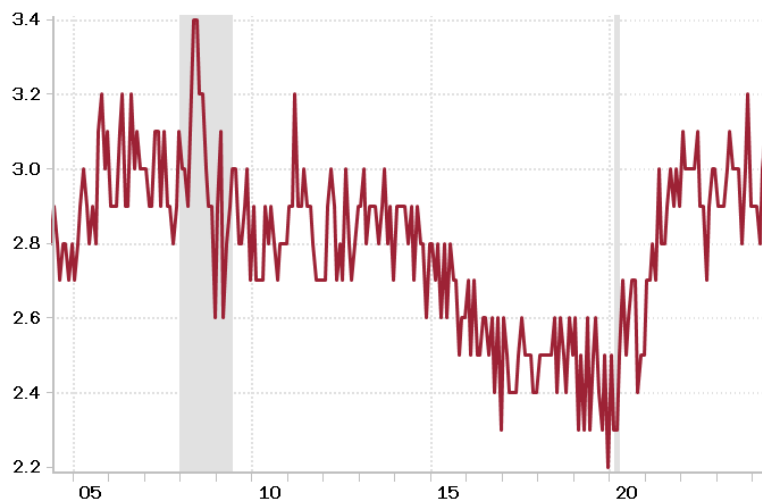
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Source: Haver Analytics, University of Michigan, Rosenberg Research

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5-10 Year Inflation Expectations

United States: *University of Michigan Survey of Consumers*
(percent)

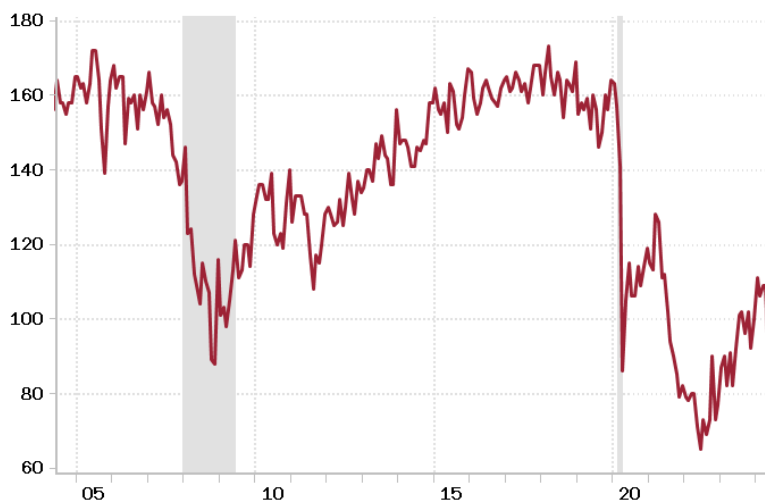


Shading indicates recession

Source: Haver Analytics, University of Michigan, Rosenberg Research

Buying Conditions: Large Household Goods

United States: *University of Michigan Survey of Consumers*
(index)



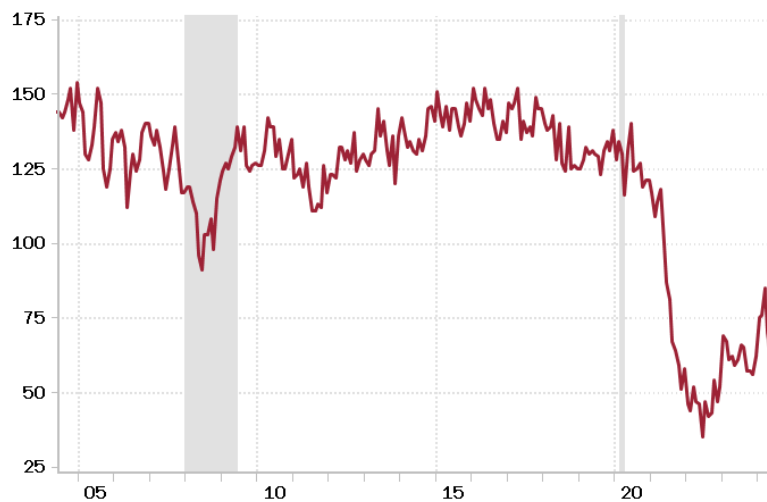
Shading indicates recession

Source: Haver Analytics, University of Michigan, Rosenberg Research

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Buying Conditions: Vehicles

United States: *University of Michigan Survey of Consumers*
(index)

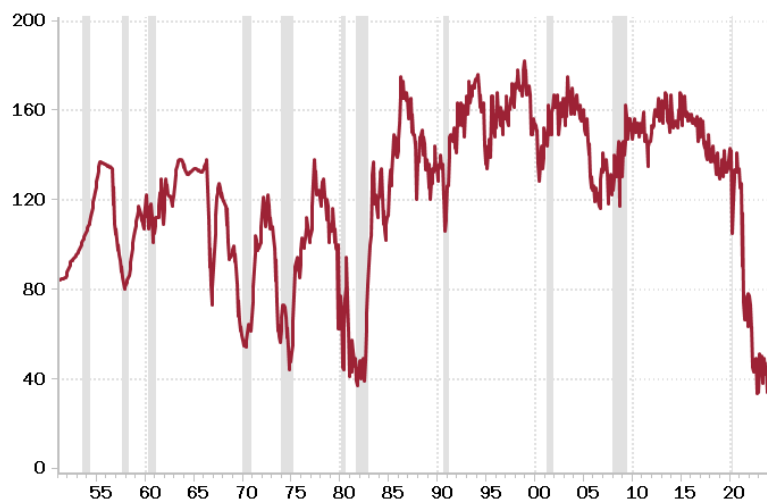


Shading indicates recession

Source: Haver Analytics, University of Michigan, Rosenberg Research

Buying Conditions: Houses

United States: *University of Michigan Survey of Consumers*
(index)



Shading indicates recession

Source: Haver Analytics, University of Michigan, Rosenberg Research

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ONE MONTH DOES NOT A TREND MAKE: CANADA EMPLOYMENT EDITION

Canada's Labour Force Survey (LFS) blew the lights out in April, recovering firmly from a very soft March report. Seasonally adjusted total employment grew by +90.4k MoM in April, well above the +20.0k expected, though the rapid pace of ongoing population growth meant that total unemployment rose too (+17.1k) and the unemployment rate held steady at +6.1%. There wasn't much in the details to belie the headline takeaway that April was a strong month for the Canadian labor market — employment gains were private sector-driven, evenly split between part-time and full-time (+40.1k and +50.3k respectively), and fairly broad-based.

Total hours rose by +0.8% MoM. That said, we think markets overreacted to Friday's data. When you factor in that the report also brought news of slowing wage growth, a repricing of rate cut odds for the June 5th meeting from 65% to 10% and a +0.4% rise in the Canadian dollar is giving the volatile LFS far too much credit. **The broad picture in Canada remains one of decelerating inflation and wages, excess supply, weak activity and rising social costs of high interest rates. That's a recipe for cuts.**

Much of the employment growth in April came from the services sector, with professional services and healthcare together accounting for less than half of the monthly gain (+26k and +17k respectively). There are well-known staffing shortages in Canada's healthcare system, so there is likely to be strength in the employment numbers there for a while, but it's worth noting that professional services have been highly volatile in recent months, swinging between large positive and negative monthly contributions since December (the smoother 3-month moving average is only up +8.0k in April, from -6.2k in March). Accommodation and food services employment is in a similarly volatile state of late, up +24.2k in April after falling -26.6k in March. For that sector, an early Easter and warm weather may have triggered an early start to the high season and caused some seasonal adjustment errors, which would point to a pull-back next month.

Higher commodity prices appear to be flowing through to the natural resources sector, with employment there up +7.7k. That's a +2.3% gain in month-over-month terms, and industry-wide employment is up +4.6% (not annualized) in the last three months and +7.4% year-over-year. Canada's mines tend to operate at the higher end of global cost curves, so it's normal for higher prices to increase employment and production in the industry.

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A big theme in the March report was weak or negative employment growth in more cyclically-sensitive industries. That's a trend that continued in April, with construction employment down a chunky -11.1k, utilities down -5.0k, and manufacturing employment only posting a +3.4k increase. Trade (+6.1k) and transport/warehousing (+6.7k) were relatively muted, while education and public services dragged a bit on total employment (-4.5k and -0.1k respectively).

There was evidence of firmness in broader labor market indicators too. The participation rate rose for the first time in 10 months (+0.1 percentage point to 65.4%), and total hours were up by +0.8% MoM (which was largely employment-driven — average weekly hours for permanent employees were flat on a seasonally-adjusted basis).

The good news that the bond markets appear to have missed came on the wage front. Average hourly wage growth for permanent employees fell from +5.0% to +4.8% YoY. Looking at all employees, the seasonally-adjusted month-over-month annualized growth in average hourly wages was down -0.3%, a big drop from +4.7% in March and +4.9% in January. Monthly data are volatile, but there is a clear trend of moderation taking hold on the wage front; annualized 3-month average hourly wage growth is down to +3.1% in April, from +4.5% in January and +8.1% as recently as September 2023.

We think a June cut from the BoC is still very much in play. We would not be at all surprised to see the strong employment numbers in Friday's report reversed in May, but unfortunately that release will come after the BoC's June 5th meeting. We will, however, get the March Survey of Employment, Payrolls and Hours (SEPH) — a more lagged, but much more reliable data point than the LFS (which has been sending a weaker signal on the labor market of late). We'll also get the Q1 GDP report before the meeting, which we expect to be revised down from the "flash" estimate, and a fresh round of CPI data. Based on Friday's reaction, we should expect a lot of data-driven market volatility heading into that meeting. We'd be ready to buy dips in the GoC bond market, and continue to bet against a recovery in the loonie.

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CANADIAN BANKS TIGHTEN THE SCREWS ON BORROWERS

The Bank of Canada's Senior Loan Officer Survey for Q1 showed a broad-based tightening in lending conditions, with banks making credit harder to access for both households and businesses. **This is a data point that bond markets should look at as a reality check alongside Friday's employment report, because it shows an ongoing (lagged) pass-through of the Bank of Canada's tight policy settings to the real economy and will weigh on consumption and investment growth in the coming quarters.**

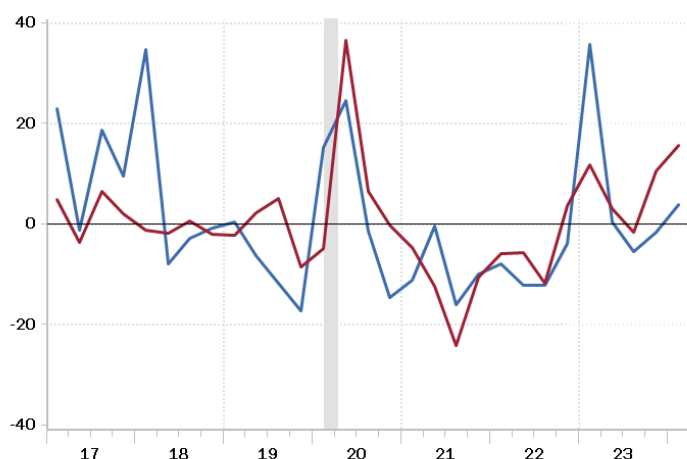
On the household front, the balance of loan officers reporting tighter non-mortgage lending conditions was the second highest on record (back to 2017), at +15.5%. That was driven by a combination of wider spreads and harsher lending standards. Mortgage conditions tightened too (+3.8%) after easing in the prior two quarters. In the mortgage market, competitive forces continue to ease price factors (-17.6% — lenders are reducing average spreads relative to the BoC's overnight rate), but non-price factors (credit standards, down payments, lending terms, etc.) tightened significantly (+25.1%) as banks increasingly vie for high-quality borrowers rather than overall market share.

Getting Credit Is Becoming More Difficult

Canada: Senior Loan Officer Survey

(red line; non-mortgage lending conditions; percent balance; >0 denotes net tightening)

(blue line; mortgage lending conditions; percent balance; >0 denotes net tightening)



Shading indicates recession

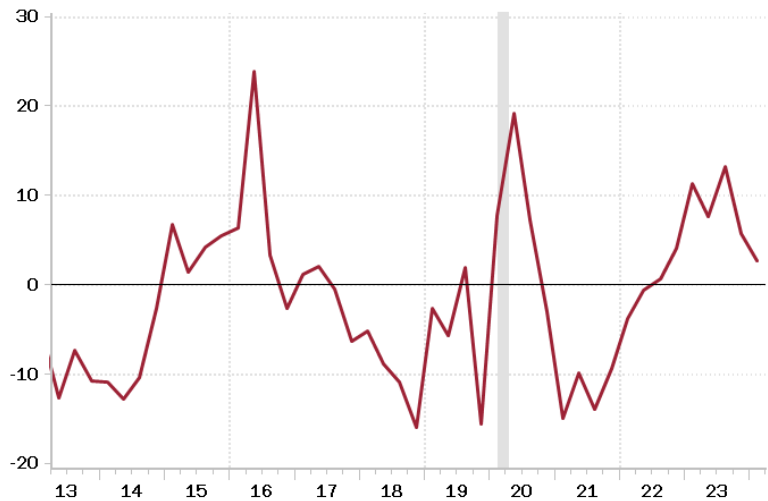
Source: Haver Analytics, Bank of Canada, Rosenberg Research

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Loan officers extended their run of making it harder for businesses to borrow to seven quarters, posting a +2.6% balance in favor of tightening credit conditions in Q1. That was entirely driven by more punitive pricing — the balance on non-price factors remained essentially unchanged.

Business Lending Conditions

Canada: *Senior Loan Officer Survey*
(percent balance; >0 denotes net tightening)



Shading indicates recession
Source: Haver Analytics, Bank of Canada, Rosenberg Research

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THE BUBBLE IN THE MARKET FOR PRIVATE CREDIT

I strongly suggest you — if you have to do so — to dial into the replay of the webcast I hosted two weeks ago with banking guru Gerard Cassidy. He was rather emphatic that the financial bubble this cycle lies not with the banks but with the ballooning “shadow banking system” — notably, private credit, a \$2+ trillion market that has doubled in size over the past five years. And the holders of this type of debt are... pension funds and insurance companies. The IMF recently published [a report](#) on these risks, with the major elements highlighted below:

How Private Credit Could Threaten Financial Stability

“The chapter assesses vulnerabilities and potential risks to financial stability in corporate private credit, a rapidly growing asset class—traditionally focused on providing loans to midsize firms outside the realms of either commercial banks or public debt markets—that now rivals other major credit markets in size.

- *Private credit creates significant economic benefits by providing long-term financing to firms too large or risky for banks and too small for public markets. However, credit migrating from regulated banks and relatively transparent public markets to the more opaque world of private credit creates potential risks.*
- *Firms borrowing private credit tend to be smaller and riskier than their public market counterparts, and the sector has never experienced a severe economic downturn at its current size and scope. Such an adverse scenario could see a delayed realization of losses followed by a spike in defaults and large valuation markdowns.*
- *The chapter identifies vulnerabilities arising from relatively fragile borrowers, increased exposure of pensions and insurers to the asset class, a growing share of semiliquid investment vehicles, multiple layers of leverage, stale valuations, and unclear interconnections between participants.*
- *Assessing overall financial stability risks of this asset class is challenging because the data needed to fully analyze these risks are unavailable. Despite these limitations, such risks appear contained at present.*

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- *However, given private credit's size and role in credit creation—now large enough to compete directly with public markets—it may become macro-critical and amplify negative shocks to the economy.*
- *The rapid growth of private credit, coupled with increasing competition from banks on large deals and pressure to deploy capital, may lead to a deterioration in pricing and nonpricing terms, including lower underwriting standards and weakened covenants, raising the risk of credit losses in the future.*
- *If the asset class remains opaque and continues to grow exponentially under limited prudential oversight, the vulnerabilities of the private credit industry could become systemic.”*

“The migration of credit provision from regulated banks and relatively transparent public markets to more opaque private credit firms raises several potential vulnerabilities. Whereas bank loans are subject to strong prudential regulation and supervisory oversight, and bond markets and broadly syndicated loans to comprehensive disclosure requirements that foster market discipline and price discovery, private markets are comparatively lightly regulated and more opaque.

Private credit loans, furthermore, are unrated, rarely traded, typically ‘marked to model’ by third-party pricing services, and without standardized terms for contracts. Rising risks and their potential implications may therefore be difficult to detect in advance.

Severe data gaps prevent a comprehensive assessment of how private credit affects financial stability. The interconnections and potential contagion risks many large financial institutions face from exposures to the asset class are poorly understood and highly opaque. Because the private credit sector has rapidly grown, it has never experienced a severe downturn at its current size and scope, and many features designed to mitigate risks have not yet been tested.

At present, the financial stability risks posed by private credit appear contained. Private credit loans are funded largely with long-term capital, mitigating maturity transformation risks. The use of leverage appears modest, as do liquidity and interconnectedness risks.

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The rapid growth of the asset class requires careful monitoring. As private credit assets under management grow rapidly, and competition with investment banks on larger deals intensifies, supply-and-demand dynamics may shift, thereby lowering underwriting standards, raising the chance of credit losses in the asset class, and rendering risk management models obsolete. The private credit sector may also eventually experience falling risk premiums and weakening covenants as assets under management rise rapidly and the pressure to deploy capital increases.

Immediate risks may seem contained, but the sector has meaningful vulnerabilities, is opaque to stakeholders, and is growing rapidly under limited prudential oversight. If these trends continue, private credit vulnerabilities may become systemic:

- Borrowers' vulnerabilities could generate large, unexpected losses in a downturn. Private credit is typically floating rate and caters to relatively small borrowers with high leverage. Such borrowers could face rising financing costs and perform poorly in a downturn, particularly in a stagflation scenario, which could generate a surge in defaults and a corresponding spike in financing costs.*
- These credit losses could create significant capital losses for some end investors. Some insurance and pension companies have significantly expanded their investments in private credit and other illiquid investments. Without better insight into the performance of underlying credits, these firms and their regulators could be caught unaware by a dramatic rerating of credit risks across the asset class.*
- Although currently low, liquidity risks could rise with the growth of retail funds. The great majority of private credit funds poses little maturity transformation risk, yet the growth of semiliquid funds could increase first-mover advantages and run risks.*
- Multiple layers of leverage create interconnectedness concerns. Leverage deployed by private credit funds is typically limited, but the private credit value chain is a complex network that includes leveraged players ranging from borrowers to funds to end investors.*

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Funds that use only modest amounts of leverage may still face significant capital calls in a downside scenario, with potential transmission to their leverage providers. Such a scenario could also force the entire network to simultaneously reduce exposures, triggering spillovers to other markets and the broad economy.

- *Uncertainty about valuations could lead to a loss of confidence in the asset class. The private credit sector has neither price discovery nor supervisory oversight to facilitate asset performance monitoring, and the opacity of borrowing firms makes prompt assessment of potential losses challenging for outsiders. Fund managers may be incentivized to delay the realization of losses as they raise new funds and collect performance fees based on their existing track records. In a downside scenario, the lack of transparency of the asset class could lead to a deferred realization of losses followed by a spike in defaults. Resulting changes to the modeling assumptions that drive valuations could also cause dramatic markdowns.*
- *Risks to financial stability may also stem from interconnections with other segments of the financial sector. Prime candidates for risk are entities with particularly high exposure to private credit markets, such as insurers influenced by private equity firms and certain groups of pension funds. The assets of private-equity-influenced insurers have grown significantly in recent years, with these entities owning significantly more exposure to less-liquid investments than other insurers. Data constraints make it challenging for supervisors to evaluate exposures across segments of the financial sector and assess potential spillovers.*
- *Increasing retail participation in private credit markets raises conduct concerns. Given the specialized nature of the asset class, the risks involved may be misrepresented. Retail investors may not fully understand the investment risks or the restrictions on redemptions from an illiquid asset class.*

Private credit borrowers tend to be riskier than their traded counterparts, such as high-yield bond and leveraged-loan issuers. Borrowers in private credit are also relatively vulnerable to interest rates, as loans have floating rates. However, the support of private equity sponsors and the relatively close and flexible relationship between lender and borrower partially mitigate liquidity and solvency risks. Collateralization and the greater use of covenants provide additional protection for investors.”

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“Private credit borrowers are typically highly leveraged middle-market companies. These firms are significantly smaller than broadly syndicated loan or high-yield bond-issuing firms. Private credit borrowers have higher debt-to-earnings ratios but better asset coverage than their syndicated loan counterparts. For all these asset classes, high debt levels are often driven by private equity sponsors that enhance returns for their investors by increasing debt on the balance sheets of the firms they acquire (Haque 2023). Private credit borrowers operate across various economic sectors and are overrepresented in the information technology and health care sectors. Private credit borrowers are vulnerable to interest rate shocks. Private credit borrowers almost exclusively use floating rate loans. By contrast, only about 29 percent of high-yield corporate bond issuers’ total debt is variable rate [...]”

“Rising interest rates could ultimately lead to a deterioration in credit quality. The rise in benchmark rates has increased the interest burden for private credit borrowers, prompting some firms to resort to payment-in-kind interest. This flexibility may help borrowers withstand temporary stress, but it can lead to compounding losses if a firm’s underperformance cannot be reversed.”

“Private credit investors, funds, and borrowers deploy leverage extensively, forming a complex multilayered structure. Investors such as insurance firms and pension funds may use leverage, making them vulnerable to the deterioration of the credit outlook and an increase in credit downgrades and defaults. These investors are also subject to margin and collateral calls during periods of high market volatility, which, given their large footprint, may exacerbate stress in financial markets [...]”

“Private credit investment vehicles may employ leverage directly within a fund, through special-purpose vehicles or holding companies. Leverage can also be increased through more complex strategies such as collateralized fund obligations, in which the interests of the fund’s limited partners are transferred to a special-purpose vehicle to loosen cash flows and access a wider investor base (IOSCO 2023). These opaque structures can also include cross-border entities, which are often used for regulatory and tax purposes.

In addition, private credit borrowers extensively deploy leverage. As discussed earlier in the ‘Mitigating Factors of Credit Risk’ section, most firms borrowing from private credit funds are backed by private equity

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sponsors, leading to higher debt for the firms or leverage ratios deemed excessive by banks.

These multiple layers of leverage throughout the value chain, often hidden by gaps in reporting, could magnify losses and trigger spillovers to other markets during a downside scenario of forced deleveraging. In such scenarios, vulnerabilities among borrowers may lead to large, unexpected losses for funds and end investors. Even funds that deploy modest amounts of leverage may still face significant capital calls, potentially affecting their leverage providers. This situation could compel the entire network to simultaneously reduce exposures, spilling over to other markets and the broader economy. Evaluation of leverage in private credit markets from a network perspective by prudential authorities is therefore critical but is currently impeded by data constraints.”

Leverage of Private Credit Funds

“Private credit funds deploy leverage to enhance returns for equity investors. The specific debt structure varies by type of investment vehicle. As for most nontraded private credit products, information on the deployment of leverage by closed-end funds is scarce. One of the few in-depth studies of closed-end funds was recently conducted by the U.S. Federal Reserve using confidential regulatory data. According to this study, most closed-end private credit funds are unleveraged but some use financial and synthetic leverage (Federal Reserve 2023). Those funds at the 95th percentile have borrowing-to-assets ratios of about 1.27 and derivatives-to-assets ratios of about 0.66.”

“Although leverage at the fund level appears limited, private credit funds may still be subject to rollover risks, particularly in a sharp downturn. Leverage provided by commercial banks often has loan-to-value triggers, and thus, private credit funds may face large collateral calls on leveraged portfolios during times of stress. Leverage providers may decide to mark assets down significantly, given the riskiness of borrowers and the lack of comparable public pricing data. In addition, private credit funds often provide their borrowing firms with revolvers or other credit lines. Sudden and significant correlated drawdowns of these credit lines could create considerable funding needs for the private credit funds. Anecdotal evidence suggests that private credit funds maintain significant cushions to mitigate this risk, yet industry commentary suggests that such pressures were seen during the height of COVID-19 stress in 2020. Unlike banks,

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private credit providers did not have access to central bank lending facilities, nor were central banks able to buy private credit assets to support asset prices (see the April 2023 Global Financial Stability Report). Evaluating the potential extent of these risks is challenging given the lack of publicly available information on maturity profiles and often even on the composition and amount of debt.”

“Evidence suggests that adjustments to the values of private credit loans are smaller and slower than those observed in public markets. Such deviations tend to persist for several quarters, after which share prices and net asset value per share converge. Markets differentiate BDCs on the basis of their qualitative and quantitative characteristics, such as the sector to which each BDC is exposed, its ability to grow organically, and its transparency. For other nontraded private credit investment funds, evidence suggests that the discounts are even larger because of the lack of transparency.”

“Stale valuations could offer a first-mover advantage and increase runoff risks for private credit funds, but this risk appears significantly mitigated at present. In a downside scenario, stale valuations might overvalue a fund’s assets, potentially prompting investors to exit before asset values are marked down. As outlined in the ‘Vulnerabilities to Liquidity Stress and Spillovers to Public Markets’ section, however, private credit funds impose substantial obstacles for investors seeking to redeem their investments, thus mitigating this risk.”

“However, stale valuations could also distort capital allocation, exacerbate conflicts of interest, and undermine confidence in private credit markets. Inaccurate or infrequent mark-to-market practices hinder investors from making informed decisions and managing risks effectively. Stale valuations could also affect market integrity when incentives are not aligned. For example, managers may have incentives to maintain high valuations during fundraising periods to reference historically higher returns. Conflicts of interest also arise from managers’ fees based on valuation. Stale valuations make it difficult for stakeholders to assess potential losses in a timely manner and, in a downturn scenario, could fuel a loss of confidence in the segment.”

“Potential risks to financial stability arising from direct exposures of banks to private credit currently appear to be contained. Banks are one of the primary providers of leverage to private credit firms, yet their aggregate

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exposure remains low. In aggregate, private credit funds in the United States borrowed about \$200 billion from U.S. banks at the end of 2021, representing less than 1 percent of the banks' assets (Federal Reserve 2023). Credit risks to banks are also mitigated by the secured nature of the loans. However, the lack of data does not allow ruling out the possibility that some banks exhibit concentrated exposure to the sector.

In their search for yield, pension funds and insurance companies have emerged as important end investors in private credit, with significant investment growth in recent years. Although private credit exposures are expanding rapidly, they remain relatively small for most institutions, accounting for only a low single-digit percentage of total assets under management. Certain segments exhibit substantially higher exposure. Specifically, some large pension funds and selected private-equity-influenced insurers in advanced economies have increased their exposures significantly in recent years, as investors in not only private credit funds but also structured credit, participation in direct lending, and the leverage providers to private credit investment vehicles.”

“Private credit is increasing the share of illiquid assets held by pension funds and insurers, giving rise to concerns about potential market disruptions. Some of the world's largest pension funds, with assets exceeding \$7 trillion, have significantly increased their allocation to illiquid investments while actively using derivatives and other forms of leverage. Rising allocations to private credit are estimated to account for almost half of the increase in level 3 assets, reflecting the growing popularity of this asset class among institutional investors. Pension funds, moreover, have sizeable investments in private equity, which are also illiquid and can be related to the same private credit investments the funds hold (see the previous section). This change in asset composition heightens pension funds' vulnerability to margin and collateral calls that could arise from their derivative exposures. These calls may exacerbate stress in global financial markets, particularly markets in which pension funds have a large footprint, such as government bonds, equities, and corporate bonds. The financial leverage of those pension funds rose to 80 percent of assets in 2022 from 67 percent in 2016 [...]”

“Private-equity-influenced life insurers, which constitute a fast-growing sector, have also elevated their illiquid exposures. Their assets have risen sharply in recent years, with U.S. private-equity-influenced life insurers

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managing well more than \$1 trillion, over 15 percent of all U.S. life insurance assets.”

“Pension funds and insurance companies can also face liquidity pressures arising from capital calls by private credit funds. These funds may require investors to provide capital within days, and investors have limited control over the timing of these calls. The Federal Reserve (2023) estimates that, as of the end of 2021, U.S. pension funds had \$69 billion in uncalled capital commitments, and insurers had \$23 billion. The total amount of uncalled capital (or ‘dry powder’) suggests that insurers and pension funds might have commitments even higher than their existing allocations to private credit funds.”

“The current regulatory requirements for insurers and pension funds do not consider the credit performance of underlying loans. Prudential requirements are often determined by the legal form and rating of the instrument, without considering the performance of the underlying loan portfolio. These limited regulatory requirements, coupled with limited supervisory scrutiny, allow insurers and pension funds to rely heavily on valuations by investment managers and ratings by rating agencies. Moreover, the multiple layers of leverage make it harder for end investors to monitor underlying loan performance and the quality of collateral.”

“Current reporting requirements are insufficient and prevent a comprehensive assessment of the leverage used in private credit. At present, the potential transmission of funding shortfalls from leverage providers cannot be fully evaluated. Fund-level reporting requirements to securities, insurance, or pension fund supervisors may not capture the complex and multilayered sources of leverage, including the subscription lines and leverages special-purpose vehicles or feeder funds deploy. Reporting is also fragmented across borders and sectors. These data gaps, along with the lack of a comprehensive overview, prevent supervisors from monitoring leverage at the macro level.”

“Risk taking is concentrated in some jurisdictions and subsectors (Cortes, Diaby, and Windsor 2023). Differences in regulatory requirements across sectors might have encouraged insurance companies, in particular those influenced by private equities, and pension funds to hold excessive exposure to private credit. Banks continue to provide leverage to the private funds and their affiliates. If the trend continues, excessive concentration in private credits and interconnectedness among private

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equity firms, insurance companies, and pension funds could exacerbate systemic risks. Data gaps often hinder the monitoring of concentration and interconnectedness risks.”

Exclusively for W.Diao at wd286@georgetown.edu

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MARKET CLOSINGS

Friday, May 10th, 2024

Equities

United States	Levels	% change
S&P 500	5,222.7	0.2
Energy	716.4	-0.6
Materials	578.2	0.1
Industrials	1,062.8	0.1
Consumer Discretionary	1,455.7	-0.6
Consumer Staples	828.3	0.6
Health Care	1,672.3	0.2
Financials	695.3	0.5
Information Technology	3,787.4	0.5
Communication Services	292.3	-0.2
Utilities	361.4	-0.2
Real Estate	236.8	-0.4
Dow Jones Industrial Average	39,512.8	0.3
Dow Transports	15,597.5	0.5
Dow Utilities	942.4	-0.1
Transports/Utilities Ratio	16.6	0.6
NASDAQ	16,340.9	0.0
Russell 2000	2,059.8	-0.7
VIX	12.6	-1.1

International	Levels	% change
TSX	22,308.9	-0.3
Euro STOXX 600	520.8	0.8
DAX	18,772.9	0.5
CAC 40	8,219.1	0.4
FTSE MIB	34,657.4	0.9
IBEX 35	11,105.5	0.5
FTSE 100	8,433.8	0.6
Nikkei 225	38,236.1	0.4
MSCI Asia-Pac Ex. Japan	1,344.0	1.0
Hang Seng	18,963.7	2.3
Shanghai	3,154.5	0.0
KOSPI	2,727.6	0.6
Straits Times	3,290.7	0.8
TAIEX	20,708.8	0.7
Sensex	72,664.5	0.4

Currencies

International	Levels	% change
U.S. Dollar Index (DXY)	105.30	0.1
Canadian dollar (C\$/US\$)	1.367	0.0
Euro (\$US/€)	1.08	-0.1
Sterling (\$US/£)	1.25	0.0
Swiss franc (\$US/CHF)	1.10	-0.1
Japanese yen (¥/\$US)	155.79	0.2
Australian dollar (\$US/AUD)	0.66	-0.2
New Zealand dollar (\$US/NZD)	0.60	-0.2

Bonds

United States	Levels	Basis points
Treasury curve (10/2)	-36.92	-0.69
2-Year T-Note Yield	4.87	5.01
5-Year T-Note Yield	4.51	4.38
10-Year T-Note Yield	4.50	4.32
30-Year T-Bond Yield	4.64	3.11
10-Year TIPS Break-Even	2.35	1.32
High-Yield Spread	302.70	-1.70
Investment-Grade Spread	87.50	0.40

International	Levels	Basis points
10-Year GOC Yield	3.70	7.00
10-Year Bund Yield	2.52	2.20
France-Bund Spread	48.50	-0.20
Italy-Bund Spread	133.80	-0.10
Spain-Bund Spread	79.30	0.30
Portugal-Bund Spread	64.00	-0.20
Greece-Bund Spread	102.20	-1.50
10-Year Gilt Yield	4.16	2.46
10-Year JGB Yield	0.91	-0.40

Commodities

International	Levels	% change
CRB Commodity Price Index	289.47	-0.2
Gold (London Fixing)	2,360.50	0.6
Silver	28.18	-0.5
Bitcoin	60,501.19	-3.4
Crude Oil (WTI)	78.26	-1.3
Natural Gas	2.25	-2.1
Copper (COMEX)	4.69	1.9
Nickel	167.69	-0.4
Bloomberg Industrial Metals Index	158.06	0.3

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MARKET POSITIONING

Updated as of Friday, May 10th, 2024

Net Speculative Positions from the Commitments of Traders Report (Number of contracts)				
	Current week	One month ago	Three months ago	One year ago
Fixed income				
30-day Fed Funds (CBOT)	136,965	-30,696	-135,960	-75,317
2-year Treasury Note (CBOT)	-1,029,425	-953,302	-1,306,123	-752,263
5-year Treasury Note (CBOT)	-1,200,273	-1,250,680	-1,299,586	-989,717
10-year Treasury Note (CBOT)	-499,837	-555,037	-755,737	-722,675
Equities				
S&P 500 (CME)	-32,268	-70,869	-222,992	-363,934
Dow (CBOT)	8,601	17,138	20,998	-19,658
NASDAQ 100 (CME)	7,282	10,074	34,805	23,530
Russell 2000 (CME)	-38,039	-27,831	-19,172	-57,252
Emerging Markets (ICE)	-39,178	-5,748	-22,654	8,136
VIX Futures (CBOE)	-38,879	-31,322	-48,987	-67,847
Commodities				
Gold (COMEX)	226,120	234,504	164,432	225,537
Silver (COMEX)	48,763	52,500	12,586	34,380
Platinum (NYMEX)	15,967	22,002	9,013	28,944
Palladium (NYMEX)	-11,057	-8,693	-11,076	-5,557
Copper (COMEX)	62,176	43,960	-13,907	-25,823
WTI Oil (NYMEX)	222,410	309,195	185,563	261,059
Natural Gas (NYMEX)	-136,608	-132,428	-115,818	-140,937
Cotton (ICE)	6,817	77,412	61,808	1,901
Wheat (CBOT)	-22,623	-55,408	-41,598	-95,288
Corn (CBOT)	-48,762	-216,408	-244,505	-90,393
Soybeans (CBOT)	-54,190	-154,261	-155,559	60,388
Hogs (CME)	80,090	110,102	44,750	-21,005
Currencies				
DX (ICE)	1,827	-1,158	1,507	11,133
Yen (CME)	-133,089	-162,202	-89,787	-64,670
Euro (CME)	3,672	31,833	58,577	184,975
Sterling (CME)	-20,913	26,744	31,577	3,312
Swiss Franc (CME)	-42,947	-32,485	-8,444	-4,290
Canadian Dollar (CME)	-71,978	-55,421	-8,381	-42,538
Australian Dollar (CME)	-64,271	-91,698	-72,876	-49,782
New Zealand Dollar (CME)	-11,191	-13,547	830	-4,540
Bitcoin (CME)	-949	-299	-1,702	211

Note: >0 denotes net long

Source: Haver Analytics, Rosenberg Research

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S&P 500 EARNINGS PER SHARE

Updated as of Friday, May 10th, 2024

S&P 500 Earnings Per Share Estimates by Sector												
	Estimate for Current Quarter (Q1 2024)				Estimate for Next Quarter (Q2 2024)				Annual Estimate (2024)			
	Current	1 Month Ago	2 Months Ago	3 Months Ago	Current	1 Month Ago	2 Months Ago	3 Months Ago	Current	1 Month Ago	2 Months Ago	3 Months Ago
S&P 500	\$56.5	\$54.8	\$55.4	\$55.5	\$59.4	\$59.5	\$59.3	\$59.3	\$244.5	\$243.3	\$242.9	\$242.2
Energy	\$12.5	\$12.4	\$12.2	\$14.0	\$14.1	\$14.6	\$13.6	\$14.9	\$55.0	\$57.1	\$54.5	\$60.1
Materials	\$5.6	\$5.5	\$5.6	\$5.8	\$7.3	\$7.3	\$7.2	\$7.3	\$26.6	\$26.4	\$26.1	\$26.5
Industrials	\$10.0	\$9.7	\$9.9	\$12.5	\$12.5	\$12.4	\$12.5	\$12.8	\$47.4	\$47.7	\$47.7	\$54.0
Consumer Discretionary	\$12.8	\$11.3	\$11.5	\$11.4	\$14.5	\$14.2	\$14.4	\$14.4	\$57.4	\$56.3	\$56.7	\$56.4
Consumer Staples	\$9.6	\$9.2	\$9.2	\$9.2	\$9.6	\$9.8	\$9.9	\$9.9	\$39.6	\$39.6	\$39.7	\$39.6
Health Care	\$21.2	\$19.1	\$20.2	\$21.6	\$22.5	\$21.6	\$21.5	\$22.8	\$82.3	\$85.6	\$87.4	\$97.2
Financials	\$10.6	\$10.5	\$10.6	\$10.4	\$10.7	\$10.5	\$10.5	\$10.6	\$44.1	\$43.0	\$42.6	\$46.0
Information Technology	\$33.6	\$33.6	\$33.5	\$33.0	\$29.9	\$29.4	\$29.0	\$28.6	\$111.7	\$111.7	\$111.6	\$111.0
Communication Services	\$3.7	\$3.3	\$3.3	\$3.5	\$3.8	\$3.6	\$3.6	\$3.7	\$15.2	\$14.5	\$14.4	\$16.2
Utilities	\$5.4	\$5.1	\$5.2	\$5.2	\$4.3	\$4.2	\$4.2	\$4.3	\$20.5	\$20.4	\$20.5	\$20.5
Real Estate	\$3.2	\$3.1	\$3.1	\$3.1	\$3.3	\$3.2	\$3.3	\$3.3	\$13.1	\$13.0	\$13.1	\$13.1

S&P 500 Historical Earnings Per Share					
Date	Quarterly		Date	Annual	
	Level (\$ per share)	YoY %		Level (\$ per share)	YoY%
2020 Q1	\$41.9	5.1%	2008	\$76.2	-17.1%
2020 Q2	\$33.4	-15.1%	2009	\$62.8	-17.7%
2020 Q3	\$28.1	-31.7%	2010	\$85.7	36.6%
2020 Q4	\$39.7	-7.4%	2011	\$99.8	16.4%
2021 Q1	\$42.5	1.3%	2012	\$104.1	4.3%
2021 Q2	\$49.0	46.8%	2013	\$111.6	7.2%
2021 Q3	\$53.0	88.4%	2014	\$119.9	7.4%
2021 Q4	\$54.5	37.1%	2015	\$119.0	-0.7%
2022 Q1	\$56.0	31.9%	2016	\$118.5	-0.4%
2022 Q2	\$54.2	10.7%	2017	\$133.1	12.3%
2022 Q3	\$57.3	8.1%	2018	\$163.2	22.6%
2022 Q4	\$56.2	3.1%	2019	\$162.4	-0.5%
2023 Q1	\$54.4	-2.8%	2020	\$136.1	-16.2%
2023 Q2	\$53.5	-1.5%	2021	\$208.7	53.4%
2023 Q3	\$54.7	-4.5%	2022	\$222.5	6.6%
2023 Q4	\$58.5	4.2%	2023	\$221.9	-0.3%
2024 Q1E	\$56.5	3.9%	2024E	\$244.5	10.2%

Source: Bloomberg, Rosenberg Research

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Rosenberg Research's Big Picture Investment Themes

The economy is not as strong as headline NFP and GDP data make out. Bonds will benefit from the coming easing cycle, while safe havens such as gold remain a good place to be as the geopolitical environment continues to fragment. While the consumer is benefiting from a strong wealth effect and has been able to spend instead of save, in turn boosting GDP growth, the Fed will nonetheless be easing policy in the second half of the year. Looking through the cycle, we see long-term investment opportunities tied to the reorganization of global supply chains and trading relationships, the diffusion of AI into the broader economy, and the ongoing change in our relationship with land and climate.

Cyclical Themes

Bonds Have More Fun

- **Long Treasury bonds** (short rates will fall, but duration amplifies return on the long end)
- **Buying opportunities** for bonds emerge as markets turn over-bearish on rates

Sticking to Earnings Momentum as Sentiment Runs High

- Tactically positive on **Energy** as higher oil prices translate to earnings upgrades

Precious Metals Are the Pick of the Commodity Space

- **Gold** has tailwinds capable of pushing the metal to \$3,000 per ounce and beyond
- **Silver** will pick up some of gold's glow, and also offers exposure to a global industrial recovery
- **Green commodities** offer buying opportunities for long holds (through current downturn)

Structural Themes

AI Software and Technology Will Drive a Decade of Productivity Enhancements

- **Robotic technologies and artificial intelligence** are where outsized returns will pool

Real Estate: Don't Be Traditional, Follow the Trends

- Farmland, agri-business in stable areas on the planet, **water infrastructure** (security of supplies)

Global Realignment: Call JIM (Japan, India, Mexico)

- Our favored EM regions are **India** & **Mexico**, where structural reforms are bearing fruit
- **Japan** will continue to benefit from macroeconomic and financial modernization

Pockets of Upside In a Grim Geopolitical Outlook

- **Defense stocks, cyber-security** (heightened geopolitical tensions and screen well on a relative basis)

OUR FULL LINE-UP OF PUBLICATIONS

Early Morning with Dave Daily

This is Rosenberg Research's first report of the day and generally is published by 8:00 a.m. EST. It provides a synopsis of the key market-moving events and data that were released overnight and includes Dave's thoughts on how the day ahead will evolve from an investment perspective.

Breakfast with Dave Daily

Our flagship product, Breakfast with Dave, is an in-depth look into global financial markets and the economy. Subscribers will have access to Dave's deep data analysis and assessments of "big picture" trends, and his advice on how to invest around them.

Weekly Buffet with Dave Weekly

The Buffet is exactly as advertised: a compilation of actionable investment ideas, pulled from the past week's Breakfast with Dave daily reports.

Technicals with Dave Weekly

The weekly technical package is comprised of a series of charts and analysis across various equity markets, sectors, fixed-income, commodities and currencies. This product, which identifies technical buying and selling opportunities, serves as a valuable backstop to our fundamental research.

Appetizer with Dave Weekly

Provides a very quick synopsis of the most important economic and financial market developments and their implications, derived from the past week's Early Morning with Dave publications. This is our lowest-priced report and is targeted towards subscribers who are looking for a concise snapshot of how global events are unfolding.

Strategizer Monthly

A monthly model-driven report, well suited for active investors. Strategizer is an effective risk-management tool, providing scorecards and expected future returns for global stock markets, equity sectors, bonds, commodities, and currencies.

What's Priced In? Monthly

A market strategy tool providing investors with actionable and tactical advice each month on which industry groups of the S&P 500 to overweight and underweight. This tool is based on measures of discounted earnings and isolating non-fundamental influences such as speculative behavior.

Deep Dives and Market Movers Periodic

This event-based report offers analysis of breaking news and/or data releases that are affecting the markets and your investments in real time.

Charts with Dave Periodic

Charts with Dave provides regular access to our latest slide deck. Those who have seen Dave's slide presentations in person know that his material is unique and informative. The charts are forward-looking, and each one has an actionable investment theme.

Special or Thematic Reports Periodic

Dave and his team of economists and strategists publish in-depth reports that tackle important secular themes which will shape the future of investing. We cover a broad array of issues, ranging from life after the pandemic, to climate change, to demographic shifts, to inflation/deflation, to China as a rising source of global economic instability.

Webcasts with Dave Periodic

For these webcasts, David is joined by industry and market thought-leaders, to share their views on the investment landscape and the economic outlook. Featured guests include luminaries such as Niall Ferguson, Leon Cooperman, Howard Marks, Bob Farrell, and Scott Minerd.

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